

Amendment and Response

Applicant: Jeffrey Davis et al.

Serial No.: 09/812,754

Filed: March 20, 2001

Docket No.: 10010106-1

Title: SCROLLING METHOD USING SCREEN POINTING DEVICE

REMARKS

The following remarks are made in response to the Non-Final Office Action mailed September 7, 2004. In the Office Action, the Examiner rejected claims 1, 6-14, and 17-19 under 35 U.S.C. §102(b) as being anticipated by Chen, U.S. Patent No. 5,568,603 ("Chen"). Claims 23 and 24 were rejected under 35 U.S.C. §102(b) as being anticipated by Belfiore et al., U.S. Patent No. 5,726,687 ("Belfiore"). The Examiner rejected claims 2-4 and 20-22 under 35 U.S.C. §103(a) as being unpatentable over Chen as applied to claim 1 above, and further in view of Belfiore. Claims 15 and 16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Chen as applied to claim 1 above, and further in view of Tiphane, U.S. Patent No. 5,805,161 ("Tiphane").

With this Response, claims 2, 3, and 19 have been amended. Claims 1-4 and 6-24 remain pending in the application and are presented for reconsideration and allowance.

Claim Rejections under 35 U.S.C. §102

The Examiner rejected claims 1, 6-14, and 17-19 under 35 U.S.C. §102(b) as being anticipated by Chen, U.S. Patent No. 5,568,603 ("Chen"). Independent claim 1 includes the limitations "providing a first plurality of user selectable scrolling zones on the display screen, each scrolling zone in the first plurality of scrolling zones associated with a scrolling technique and **corresponding to scrolling in a first direction**, each of the scrolling zones in the first plurality being positioned substantially adjacent to a first edge of the display screen" and "providing a second plurality of user selectable scrolling zones on the display screen, each scrolling zone in the second plurality of scrolling zones associated with a scrolling technique and **corresponding to scrolling in a second direction** that is different from the first direction". (emphasis added). Thus, two scrolling directions are recited in claim 1, and multiple scrolling zones correspond to each of the two directions.

In contrast, Figure 5A of Chen, which was cited by the Examiner, shows eight arrows 30, with each arrow 30 corresponding to a different direction. Chen discloses that "FIG. 5A illustrates the embodiment of the present invention in which **eight scrolling directions** are available. In other words, assuming an x-y axis centered in the middle of reference region 41, this embodiment can scroll the picture at angles of 0°, 45°, 90°, 135°, 180°, 225°, 270°, and

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315°, (i.e., angles that are multiples of 45°).” (Chen at col. 9, lines 55-60) (emphasis added). Chen does not teach or suggest providing multiple arrows 30 corresponding to the same direction. Chen does not teach or suggest providing a first **plurality** of scrolling zones corresponding to scrolling in a first direction, and a second **plurality** of scrolling zones corresponding to scrolling in a second direction.

In view of the above, independent claim 1 is not taught or suggested by Chen. In addition, dependent claims 6-14, 17, and 18, which further limit patentably distinct claim 1, are also believed to be allowable over the cited reference. Allowance of claims 1, 6-14, 17, and 18 is respectfully requested.

Independent claim 19, as amended herein, includes the limitation “each user selectable scrolling zone in the first plurality of scrolling zones associated with a scrolling technique that is different than scrolling techniques associated with the other scrolling zones in the first plurality, having a user selectable area defined by hidden boundaries, and corresponding to scrolling in a first direction”. As described above with respect to claim 1, Chen does not teach or suggest the limitations “providing a first plurality of user selectable scrolling zones on the display screen, each scrolling zone in the first plurality of scrolling zones associated with a scrolling technique and **corresponding to scrolling in a first direction**, each of the scrolling zones in the first plurality being positioned substantially adjacent to a first edge of the display screen” and “providing a second plurality of user selectable scrolling zones on the display screen, each scrolling zone in the second plurality of scrolling zones associated with a scrolling technique and **corresponding to scrolling in a second direction** that is different from the first direction”, as recited in claim 1. (emphasis added). For the reasons set forth above with respect to claim 1, Chen also does not teach or suggest the limitation “each user selectable scrolling zone in the first plurality of scrolling zones . . . corresponding to scrolling in a first direction”, as recited in claim 19.

Chen also does not teach or suggest the limitation “each user selectable scrolling zone in the first plurality of scrolling zones associated with a scrolling technique that is different than scrolling techniques associated with the other scrolling zones in the first plurality”. Figure 5A of Chen shows eight arrows 30, with each arrow 30 corresponding to a different direction. However, claim 19 recites that the scrolling zones in the first plurality correspond to scrolling in the same direction (the “first direction”), and that the scrolling zones are

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associated with different scrolling techniques. There is no teaching or suggestion in Chen that the arrows 30 are associated with different scrolling techniques.

In view of the above, independent claim 19 is not taught or suggested by Chen. Allowance of claim 19 is respectfully requested.

The Examiner rejected claims 23 and 24 under 35 U.S.C. §102(b) as being anticipated by Belfiore et al., U.S. Patent No. 5,726,687 (“Belfiore”). Independent claim 23 includes the limitations “determining a first movement direction and a first movement velocity based on the received movement information;” and “scrolling the displayed information on the display screen in a direction corresponding to the first movement direction and in an amount based on the first movement velocity, the scrolling amount greater than the amount of movement of the screen pointer.” Belfiore does not teach or suggest scrolling in a direction corresponding to a movement direction of a screen pointing device. Rather, Belfiore discloses that the scrolling direction is determined solely based on the current position of the mouse indicator, regardless of which direction the mouse indicator is moving. (See, e.g., Belfiore at col. 7, lines 10-27).

Belfiore discloses that a velocity or speed is calculated, but does not teach or suggest scrolling information in an amount based on the velocity as recited in claim 24. Rather, Belfiore discloses that the information is scrolled at a constant scroll frequency of four lines per second. (Belfiore at col. 7, lines 35-37). The information is scrolled at this constant frequency as long as the mouse indicator is positioned within the scroll region and the mouse button is depressed, even if the mouse indicator is not moving at all and the calculated velocity is zero. (See, e.g., Belfiore at col. 6, line 57 to col. 7, line 47).

In view of the above, independent claim 23 is not taught or suggested by Belfiore. Allowance of claim 23 is respectfully requested.

Claim 24 is dependent on claim 1, and includes the limitation “wherein at least one of the scrolling zones is defined by hidden boundaries that are invisible to a user of the electronic device.” The Examiner stated that “[r]egarding claim 24, wherein at least one of the scrolling zones is defined by hidden boundaries that are invisible to a user of the electronic device. (col. , lines)”. (Office Action at para. no. 5, page 7). The Examiner did not provide any citation to Belfiore for this claim. The Examiner’s rejection also appears to be based on the assumption that claim 24 is dependent on independent claim 23, but claim 24

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is dependent on independent claim 1. As described above with respect to claim 1, Chen does not teach or suggest the limitations “providing a first plurality of user selectable scrolling zones on the display screen, each scrolling zone in the first plurality of scrolling zones associated with a scrolling technique and corresponding to scrolling in a first direction, each of the scrolling zones in the first plurality being positioned substantially adjacent to a first edge of the display screen” and “providing a second plurality of user selectable scrolling zones on the display screen, each scrolling zone in the second plurality of scrolling zones associated with a scrolling technique and corresponding to scrolling in a second direction that is different from the first direction”, as recited in claim 1. Belfiore also does not teach or suggest these limitations of claim 1.

In view of the above, dependent claim 24, which further limits patentably distinct claim 1, is believed to be allowable over the cited references. Allowance of claim 24 is respectfully requested.

Claim Rejections under 35 U.S.C. §103

The Examiner rejected claims 2-4 and 20-22 under 35 U.S.C. §103(a) as being unpatentable over Chen as applied to claim 1 above, and further in view of Belfiore. Dependent claims 2-4 are dependent on independent claim 1. As described above with respect to independent claim 1, Chen does not teach or suggest the limitations “providing a first plurality of user selectable scrolling zones on the display screen, each scrolling zone in the first plurality of scrolling zones associated with a scrolling technique and **corresponding to scrolling in a first direction**, each of the scrolling zones in the first plurality being positioned substantially adjacent to a first edge of the display screen” and “providing a second plurality of user selectable scrolling zones on the display screen, each scrolling zone in the second plurality of scrolling zones associated with a scrolling technique and **corresponding to scrolling in a second direction** that is different from the first direction”, as recited in claim 1. (emphasis added). Belfiore also does not teach or suggest these limitations of claim 1. Since claims 2-4 further limit patentably distinct claim 1, claims 2-4 are believed to be allowable over the cited references. Claims 2-4 are also further distinguishable over the cited references.

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Claim 2, as amended, includes the limitation “wherein the scrolling techniques associated with the scrolling zones in the first plurality correspond to different scrolling speeds.” Chen and Belfiore, either alone, or in combination, do not teach or suggest a plurality of scrolling zones corresponding to scrolling in the same direction (the “first direction”), and associated with different scrolling speeds.

Claim 3, as amended, includes the limitation “wherein the scrolling techniques associated with the scrolling zones in the first plurality correspond to different scrolling granularities.” Chen and Belfiore, either alone, or in combination, do not teach or suggest a plurality of scrolling zones corresponding to scrolling in the same direction (the “first direction”), and associated with different scrolling granularities. Claim 4 is dependent on claim 3, and further limits patentably distinct claim 3.

In view of the above, dependent claims 2-4, which further limit patentably distinct claim 1, and are further distinguishable over the cited references, are believed to be allowable over the cited references. Allowance of claims 2-4 is respectfully requested.

Claims 20-22 are dependent on independent claim 19. As described above with respect to claim 19, Chen does not teach or suggest the limitation “each user selectable scrolling zone in the first plurality of scrolling zones associated with a scrolling technique that is different than scrolling techniques associated with the other scrolling zones in the first plurality, having a user selectable area defined by hidden boundaries, and corresponding to scrolling in a first direction”, as recited in claim 19. Belfiore also does not teach or suggest this limitation of claim 19. Since claims 20-22 further limit patentably distinct claim 19, claims 20-22 are believed to be allowable over the cited references. Claims 20-22 are also further distinguishable over the cited references.

Claim 20 includes the limitation “wherein each scrolling technique corresponds to a scrolling speed.” Chen and Belfiore, either alone, or in combination, do not teach or suggest a plurality of scrolling zones corresponding to scrolling in the same direction (the “first direction”), and corresponding to different scrolling speeds.

Claim 21 includes the limitation “wherein each scrolling technique corresponds to a scrolling granularity.” Chen and Belfiore, either alone, or in combination, do not teach or suggest a plurality of scrolling zones corresponding to scrolling in the same direction (the

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“first direction”), and corresponding to different scrolling granularities. Claim 22 is dependent on claim 21, and further limits patentably distinct claim 21.

In view of the above, dependent claims 20-22, which further limit patentably distinct claim 19, and are further distinguishable over the cited references, are believed to be allowable over the cited references. Allowance of claims 20-22 is respectfully requested.

The Examiner rejected claims 15 and 16 under 35 U.S.C. §103(a) as being unpatentable over Chen as applied to claim 1 above, and further in view of Tiphane, U.S. Patent No. 5,805,161 (“Tiphane”). Dependent claims 15 and 16 are dependent on independent claim 1. As described above with respect to independent claim 1, Chen does not teach or suggest the limitations “providing a first plurality of user selectable scrolling zones on the display screen, each scrolling zone in the first plurality of scrolling zones associated with a scrolling technique and **corresponding to scrolling in a first direction**, each of the scrolling zones in the first plurality being positioned substantially adjacent to a first edge of the display screen” and “providing a second plurality of user selectable scrolling zones on the display screen, each scrolling zone in the second plurality of scrolling zones associated with a scrolling technique and **corresponding to scrolling in a second direction** that is different from the first direction”, as recited in claim 1. (emphasis added). Tiphane also does not teach or suggest these limitations of claim 1. Since claims 15 and 16 further limit patentably distinct claim 1, claims 15 and 16 are believed to be allowable over the cited references.

Claims 15 and 16 are also further distinguishable over the cited references. For example, with respect to claim 15, the Examiner stated that “it is noted that Chen fails to disclose scrolling zones including nine scrolling zones organized into columns and rows. Tiphane discloses scrolling zones including nine scrolling zones organized into three columns and three rows . . . (Tiphane discloses in figures 4A and 4B)”. (Office Action at para. no. 8, page 8). In Figures 4A and 4B, Tiphane discloses a pop-up box menu 420. Tiphane discloses that “[t]he pop-up box menu has nine buttons representing particular functions including a button for vertical scrolling 425 and a button for horizontal scrolling 430.” (Tiphane at col. 5, lines 6-9). Tiphane does not define the functions of the other seven buttons in the pop-up box menu. There is no teaching or suggestion in Tiphane that the other seven buttons in the pop-up box menu are related to scrolling functions. Tiphane’s disclosure regarding a pop-up box menu with a single button for vertical scrolling 425 and a single

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button for horizontal scrolling 430 does not teach or suggest "providing a third plurality of user selectable scrolling zones on the display screen, each scrolling zone in the third plurality of scrolling zones associated with a scrolling technique and corresponding to scrolling in a direction that is different from the first and the second directions, and wherein the first, the second, and the third plurality of user selectable scrolling zones collectively include nine scrolling zones organized into three columns and three rows" as recited in claim 15.

In view of the above, dependent claims 15 and 16, which further limit patentably distinct claim 1, and are further distinguishable over the cited references, are believed to be allowable over the cited references. Allowance of claims 15 and 16 is respectfully requested.

CONCLUSION

In view of the above, Applicant respectfully submits that pending claims 1-4 and 6-24 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1-4 and 6-24 is respectfully requested.

No fees are required under 37 C.F.R. 1.16(b)(c). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 50-1078.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to Jeff A. Holmen at the below-listed telephone number or Pamela Lau Kee at Telephone No. (408) 553-3059, Facsimile No. (408) 553-3063. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

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CERTIFICATE UNDER 37 C.F.R. 1.8:

The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to: Mail Stop Amendments, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 7th day of December, 2004.

By Jeff A. Holmen

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